

## Minimum Difficulty of a Job Schedule [\(View\)](#)

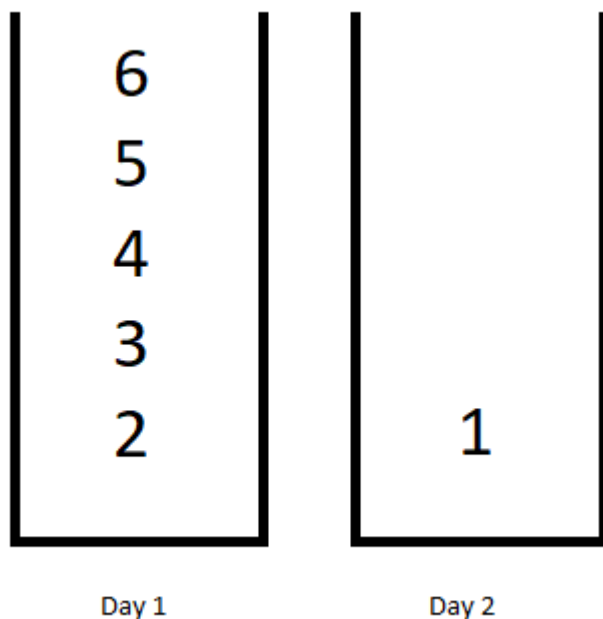
You want to schedule a list of jobs in  $d$  days. Jobs are dependent (i.e. To work on the  $i^{\text{th}}$  job, you have to finish all the jobs  $j$  where  $0 \leq j < i$ ).

You have to finish **at least** one task every day. The difficulty of a job schedule is the sum of difficulties of each day of the  $d$  days. The difficulty of a day is the maximum difficulty of a job done on that day.

You are given an integer array `jobDifficulty` and an integer  $d$ . The difficulty of the  $i^{\text{th}}$  job is `jobDifficulty[i]`.

Return *the minimum difficulty of a job schedule*. If you cannot find a schedule for the jobs return  $-1$ .

### Example 1:



**Input:** `jobDifficulty = [6,5,4,3,2,1]`,  $d = 2$

**Output:** 7

**Explanation:** First day you can finish the first 5 jobs, total difficulty = 6.

Second day you can finish the last job, total difficulty = 1.

The difficulty of the schedule =  $6 + 1 = 7$

**Example 2:**

**Input:** `jobDifficulty = [9,9,9], d = 4`

**Output:** `-1`

**Explanation:** If you finish a job per day you will still have a free day. you cannot find a schedule for the given jobs.

**Example 3:**

**Input:** `jobDifficulty = [1,1,1], d = 3`

**Output:** `3`

**Explanation:** The schedule is one job per day. total difficulty will be 3.

**Constraints:**

- `1 <= jobDifficulty.length <= 300`
- `0 <= jobDifficulty[i] <= 1000`
- `1 <= d <= 10`